

**A COMMON MODE LINEARIZED INPUT STAGE AND
AMPLIFIER TOPOLOGY**

ABSTRACT OF THE DISCLOSURE

A common mode linearized input stage comprises NPN and PNP differential pairs biased with respective tail currents at respective common emitter nodes, with each pair
5 connected to receive a differential input signal. A tail current modulation circuit generates complementary output currents as a function of the voltage difference between the common emitter nodes, and first and second tail current sources generate the tail currents as a function of the
10 complementary output currents. The tail current modulation circuit and the first and second tail current sources are arranged such that the magnitudes of the tail currents increase with an increasing differential input signal.